An Examination of Preferred Coaching Behaviors as Classified by Athletes Gender, Race, and Playing Time

Trey Burdette, Barry Joyner, and Dan Czech
Georgia Southern University

ABSTRACT
The Multidimensional Model for Sport Leadership (MML) (Chelladurai, 1980) posits that an athlete’s performance and satisfaction are functions of the congruency between the preferred leadership of student-athletes, the required behavior of the coach as dictated by the situation, and the actual behavior of the coach. As such, research in sport should examine how appropriate the model is to today’s athletic culture. Gender, one member characteristic, has been researched considerably, with conflicting results, while race and the amount of playing time have been largely ignored with preferential leadership. The purpose of this study was to classify student-athletes’ race, gender, and playing time by their preferred coaching behaviors. NCAA Division-I student-athletes (n = 140) in baseball, men’s and women’s basketball, men’s and women’s soccer, softball, and men’s and women’s volleyball were surveyed using the Revised Leadership Scale for Sport (RLSS). Using discriminant analysis, the authors attempted to predict the student-athlete gender, race, and playing time by their preferred coaching behavior scores. None of the models were significant, indicating a lack of variance between the classification groups. Future research on the importance of preferred coaching predictors is discussed.

Key Words: Sport Leadership, Revised Leadership Scale for Sport, Multidimensional Model for Sport Leadership
An Examination of Preferred Coaching Behaviors as Classified by Athletes Gender, Race, and Playing Time

In 2006, the National Association for Sport and Physical Education (NASPE) published the revised National Standards for Sport Coaches. These 40 standards, within eight domains, were developed so that coaching education programs have a paradigm for training sport coaches (NASPE, 2006). These standards provide coaches across the country with similar training and have adequate coaching knowledge. Moreover, it offers coaches formal training based on various scientific disciplines such as sociology, physiology, psychology, and leadership. This, in theory, allows coaches to disseminate proper information to athletes, giving both athletes and coaches a higher chance for success. The leadership qualities and behaviors examined in the present study cover four of the eight domains – Philosophy and Ethics, Growth and Development, Teaching and Communication, and Sport Skills and Tactics – and many standards.

Based on Fielder’s Contingency Model of Leadership, Chelladurai (1980) developed a Multidimensional Model of Sport Leadership (MML). In this model, there are three antecedents to leader behavior: situational characteristics, leader characteristics, and member characteristics. Member characteristics (gender, age, and playing time in the current study), in particular, may lead to specific preferred leadership behaviors. These antecedents produce three types of behavior: required behavior, actual behavior, and preferred behavior. The outcome of the MML is such that if the three types of behaviors are congruent, performance and satisfaction will increase (Chelladurai, 1980). Figure 1 illustrates the MML.

One area in the preferential leadership research that has been examined is the type of sport played and its influence on the student-athletes’ preferred coaching behavior. Athletes who play team sports such as basketball, volleyball, or football prefer less democratic coaching than an athlete who plays an individual sport such as tennis or golf (Beam, Serwatka, & Wilson, 2004; Terry & Howe, 1984). Autocratic behaviors are not solely preferred by these athletes, simply preferred more than the other behaviors in the RLSS. Terry and Howe (1984) found highly significant interactions between the task dependence of the sport and the preference of the athletes. The most preferred behavior among all athletes were instructional in nature, although team sports preferred more autocratic behaviors while independent sports sought more democratic behaviors. When examining task variability, the authors found no differences, while Riemer and Chelladurai (1995) found that athletes whose tasks are varied from their teammates (offensive versus defensive players in football) prefer different coaching behaviors.

Research is conflicted regarding the extent to which gender influences preferred leadership. Numerous researchers have shown gender differences exist regarding preferred leadership (Beam, Serwatka, & Wilson, 2004; Chelladurai & Arnott, 1985; Fry et al., 2006; Lam, et al., 2007; Martin et al., 2001; Riemer & Toon, 2001; Terry, 1984) while others (Martin et al., 1999; Sherman, Fuller, & Speed, 2000; Terry & Howe, 1984)
report no differences between males and females. Sherman, Fuller, and Speed (2000) found no significant difference between male and female scores and both male and female athletes ranked preferred leader behavior the same way – Positive Feedback, Training and Instruction, Democratic Behavior, Social Support, and lastly Autocratic Behavior. The authors also suggested that athlete gender does not influence preferred coaching behavior in dual gender sports, such as basketball. Martin et al. (1999) found that in a youth sport setting, girls preferred a more democratic coach than boys. Martin (2001) found no differences between gender groups, stating that boys and girls prefer similar coaching behaviors that are instructional in nature. Barnes (2003) examined coaching behavior preferences of NCAA Division I athletes and Kravig (2003) examined coaching behavior preferences of interscholastic athletes. Both researchers reported that although preferred leadership varied as a function of gender and type of sport, overall the preferences from athletes were similar.

Similar to gender, the degree to which the skill level influences preferred coaching behaviors seems to vary. Riemer and Toon (2001) found that athletes of lesser ability preferred more positive feedback than athletes with more ability. The researchers suggested that higher skilled athletes had more mastery of the skill and, therefore, needed less positive feedback. Hastie (1995) concurred, finding that players of more elite status had less desire for positive feedback and although insignificant, preferred more autocratic coaches. Less elite athletes preferred more positive behaviors. Chelladurai and Carron (1983) examined the relationship athletic maturity and preferred leadership, and revealed that as athletic maturity increased so did the preferences for social support from coaches. Also, the researchers found a curvilinear relationship between maturity and instructional behaviors. As athletic maturity increased, desire for Training and Instruction declined up until the university level. University athletes preferred more Training and Instruction than any other group. Conversely, Beam, Serwatka, and Wilson (2004) found no differences between NCAA Division I and Division II athletes regarding preferred coaching behavior, indicating that athletes of varying abilities prefer similar coaching behaviors. Martin et al. (1999) found no differences between early and late adolescent athletes regarding preferred leadership, both preferring instruction and positivism. One specific aspect of preferred leadership regarding skill level is the possible differences in starters versus reserve players. Lacy and Martin (1994) found that the behaviors of collegiate volleyball coaches were similar for starters and non-starters. However, the preferred behaviors between the two groups were not examined. The authors suggested that the lack of differences might be attributed to the study being in the preseason. This hypothesis was reinforced by Turman (2003) who found that athlete preferences changed throughout the course of the season, ranging from positive behaviors early in the season to autocratic behaviors late in the season.

Cultural differences have been investigated as a factor of preferred leadership. Chelladurai et al. (1988) examined the preferences of Canadian and Japanese athletes and found that Japanese athletes preferred more Autocratic and Social Support behaviors while Canadian athletes preferred Instructional behaviors from coaches. Hastie (1993)
also examined preferences cross culturally, studying Australian and Canadian athletes. He found no interaction between the preferred behaviors and nationality. Although cross cultural studies exist, limited research has been found on the coaching behavior preferences of different racial groups. Given that coaches generally interact daily with athletes of different races or ethnicities, the current study may provide insight to the preferences of these under-researched populations.

Prior research on the preferred coaching behaviors of student-athletes has focused primarily on the demographics of the student-athletes. The results have been conflicted with some researchers finding differences between gender (Beam, Serwatka, & Wilson, 2004; Chelladurai & Arnott, 1985; Fry et al., 2006; Lam, et al., 2007; Martin et al., 2001; Riemer & Toon, 2001; Terry, 1984) and skill level (Hastie, 1995; Riemer & Toon, 2001). Others, however, found no differences on preferred behaviors between gender (Martin et al., 1999; Sherman, Fuller, & Speed, 2000; Terry & Howe, 1984) or skill level (Beam, Serwatka, Wilson, 2004; Martin et al., 1999). Thus, the interaction of member characteristics and preferred leadership in sport is unclear. Therefore, the purpose of this study was to classify student-athletes’ race, gender, and playing time by their preferred coaching behaviors scores on the RLSS.

Methods

Design and Procedure

The present study used quantitative methodology in the form of survey administration. The instrument was delivered initially via the internet in order to access a large number of subjects. Demographic information was also collected from the participants. There are several positives to conducting web-based research. The most valuable advantage is the elimination of geographical limitations (Birnbaum, 2004a; Smith and Leigh, 1997) and the anonymity for the participants (Birnbaum, 2004b; Smith and Leigh, 1997). Via mutual contacts at various universities, the researchers gained access to participants in all regions of the country without having to travel to physically survey participants. Meyerson and Tryon (2003) found that research conducted via the World Wide Web was reliable and valid. To increase response rate, the researchers also administered the survey face-to-face.

Participants

The participants for this study were conveniently sampled from NCAA Division-I schools from across the United States. Schools were selected based on the researchers’ personal contact within each institution’s athletic personnel. The sample (n=140) consisted of NCAA Division I student-athletes who compete in men’s and women’s basketball, men’s and women’s soccer, baseball, softball, and volleyball. A convenient sample was taken in order to have participants with proportionate gender, race, and playing times.
Instrumentation

The initial section of the instrument gathered demographic data on the athlete such as gender, race, sport played, and how often they played in competitions. To assess the preferred coaching behaviors, Chelladurai and Saleh (1980) developed an instrument to measure leader behavior in sport. The Leadership Scale for Sport (LSS) was designed to measure: 1) the student-athletes’ preference for leader behavior by the coach, 2) the coach’s actual leadership behavior as perceived by the student-athlete, and/or 3) the actual leadership behavior as self-reported by the coach. The scale evaluates the scores for five leadership dimensions: Democratic Behavior, Positive Feedback, Training and Instruction, Social Support, and Autocratic Behavior.

Based on inconsistencies between the LSS and the Multidimensional Model of Sport Leadership, Zhang and Jensen (1997) revised that instrument. The authors added two additional dimensions, Group Maintenance and Situational Characteristics. Group maintenance was defined by the researchers as behaviors that add to group cohesion and building relationships between members of the team, including the coaching staff. It was added to the LSS because the original instrument lacked a measure of group dynamics, which leadership literature suggests is a major function of leadership (Carron & Hausenblas, 1998; Northouse, 2003). Situational Characteristics were suggested as behaviors such as goal setting and factors such as time, the environment, the team, and the game. It was added to the LSS as the authors did not consider contingent leadership, which is represented in the Multidimensional Model for Sport Leadership (Zhang and Jensen, 1997). However, Group Maintenance was found to emerge in other factors such as Social Support. Therefore, in the final revision, only Situational Characteristics remained, giving the Revised Leadership Scale for Sport (RLSS) a total of six dimensions. Much research in coaching and leadership behavior has used both the LSS and the RLSS to measure preferred leadership.

One of the three versions of the Revised Leadership Scale for Sport (RLSS) was utilized in the present study. It measured the athletes’ preferred coaching behaviors (Zhang and Jensen, 1997). The RLSS has a total of 60 items, measuring six subscales. The instrument is scored on a 5-point Likert scale. The possible responses are as follows: always – 100% of the time, often – 75% of the time, occasionally – 50% of the time, seldom – 25% of the time, and never – 0% of the time. The responses were coded as: always = 5, often = 4, occasionally = 3, seldom = 2, and never = 1. The RLSS allowed the results of the study to fit within the MML framework in order to test the theory. Internal consistency was established for the revised version by Cronbach’s alpha. Coefficients were significantly greater than .70 in all dimensions, with the exception of Autocratic Behavior. The highest coefficient for Autocratic Behavior was .59 (Zhang and Jensen, 1997). However, the authors report that the internal consistency was improved and thus, the Autocratic Behavior was acceptable. The subscales and descriptions are listed in Table 1.
### Table 1
Six subscales for the Revised Leadership Scale for Sport

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Type of Behavior</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Democratic Behavior</td>
<td>Decision-making behaviors</td>
<td>Allows athletes to be involved in the development of goals, practice methods, and game strategies</td>
</tr>
<tr>
<td>Positive Feedback</td>
<td>Motivational behaviors</td>
<td>Consistently praise and reward for good performance – this dimension is limited to athletic context</td>
</tr>
<tr>
<td>Training and Instruction</td>
<td>Instructional behaviors</td>
<td>High scores in this subscale illustrate attempting to improve performance by giving technical instruction, skills and techniques, and strategies</td>
</tr>
<tr>
<td>Situational Consideration</td>
<td>Situational behaviors</td>
<td>Coaching aimed at considering situation factors, differentiating coaching methods at different stages, and assigning athletes to the proper position</td>
</tr>
<tr>
<td>Social Support</td>
<td>Motivational behaviors</td>
<td>Shows concern for athletes wellbeing and establish relationships with athletes – typically extend beyond athletic context</td>
</tr>
<tr>
<td>Autocratic Behavior</td>
<td>Decision-making behaviors</td>
<td>The coach emphasizes independent decision-making and personal authority – athlete input is not invited</td>
</tr>
</tbody>
</table>

Zhang & Jensen, 1997; as cited in Weinberg and Gould, 2007, pg. 21

Once the researchers obtained approval from the Institutional Review Board, an email was sent to the head coaches of 15 NCAA Division-I schools across the country for baseball, men’s basketball, women’s basketball, men’s soccer, women’s soccer, softball, and volleyball. The head coaches were to forward the information about the study, along with the link to the website, so the athletes could participate. The initial response rate was poor and follow-up correspondences were sent back to the head coaches as well as the CHAMPS/Life Skills Coordinators for each school. Instructions were given that included repeat submissions by the same athlete were not to be completed. Moreover, because no extrinsic reward was offered for participation, multiple submissions by the same athlete were not expected and were not controlled. Giving instructions and removing incentives are two strategies that can avoid duplicate submissions (Birnbaum, 2004a). Along with the online instrument, the researcher, if given access, also surveyed student-athletes in person in order to increase the participation rate. Smith and Leigh (1997) conclude that it...
is appropriate to combine an Internet sample with an in-person sample to increase the number of subjects. Although not ideal, research (Lusk, Delcios, Burau, Drawhorn, & Aday, 2007) suggests that the demographics for the respondents may differ (socioeconomic status, age, etc.), previous studies also suggest that the results for web-based versus in-person data collection yield paralleled outcomes (Birnbaum, 2004a; Gosling, Vazire, Srivastava, & John, 2004). However, the researchers acknowledge that this is a limitation to the current study.

A discriminant analysis was conducted to attempt to classify the participants’ gender, race, and the amount of playing time based on their RLSS score for each subscale. Alpha levels were significant at .01.

Results

In reporting the findings of the study, this section will be organized in the following manner: 1) Demographics of the Participants, 2) Instrument Reliabilities, and 3) Discriminant Analysis.

Demographics of the Participants

The overall participation rate for the study was approximately 11% of surveyed athletes. The sample included Division-I athletes (n=140) from 15 schools in the above mentioned sports. Among the 140 viable data, there were several participants that skipped a small number of questions at random. To complete these participants’ data, the researcher inserted the mean score for that particular question. This is one strategy for missing data in multivariate analysis according to previous literature (Frane, 1976). If subjects with missing data were removed, an unsatisfactory sample would result. The researcher surveyed 76 (54.3%) male athletes and 64 (45.7%) female athletes. Of the 140 total athletes sampled, 111 (79.3%) were white and 29 (20.7%) were minority. Sixty-two (44.3%) participants reported playing at least 50% of competitions, while 78 (55.7%) reported playing less than 50% of competitions.

Instrument Reliabilities

Internal consistencies were calculated from the student-athlete data for each of the subscales in the Revised Leadership Scale for Sport (RLSS). Using Cronbach’s Alpha for the student-athlete responses, four of the six subscales (Democratic Behavior, α = .80; Positive Feedback, α = .88; Training and Instruction, α = .79; and Social Support, α = .75) exhibited acceptable levels of internal consistency. Situational Consideration displayed marginal internal consistency (α = .69) and Autocratic Behavior displayed the worst internal consistency with an alpha level of .52.
Discriminant Analysis

The researcher used discriminant analysis to attempt to predict group classification based on the responses to the six scales. Separate analyses were done to predict gender, race, and playing time.

None of the discriminant models were significant. The groups were classified as possible: Gender (p = .17), Race (p = .41), Playing Time (p = .56). Table 2 illustrates the prediction rates of the discriminant analyses.

Table 2
Discriminant analyses for athlete gender, race, and playing time (n = 140)

<table>
<thead>
<tr>
<th></th>
<th>Actual Prediction Rate</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>53.9%</td>
<td>.17</td>
</tr>
<tr>
<td>Female</td>
<td>56.3%</td>
<td></td>
</tr>
<tr>
<td>Race</td>
<td></td>
<td>.41</td>
</tr>
<tr>
<td>White</td>
<td>49.5%</td>
<td></td>
</tr>
<tr>
<td>Minority</td>
<td>51.7%</td>
<td></td>
</tr>
<tr>
<td>Playing time</td>
<td></td>
<td>.56</td>
</tr>
<tr>
<td>≥50%</td>
<td>50.0%</td>
<td></td>
</tr>
<tr>
<td>&lt;50%</td>
<td>53.8%</td>
<td></td>
</tr>
</tbody>
</table>

Note. α levels are significant at .01

Discussion

Multidimensional Model for Sport Leadership

The Multidimensional Model for Sport Leadership (Chelladurai, 1980) names three antecedents to sports leadership, situation characteristics, leader characteristics, and member characteristics. These antecedents influence three types of behaviors, required, actual, and preferred, respectively. If all three types of behaviors are congruent, satisfaction and performance will increase. If the required and actual behaviors are congruent but preferred behaviors are not aligned, satisfaction will decrease. If actual and preferred behaviors are harmonious and required behavior is incompatible, performance is likely to decrease. See Figure 1 for a graphic representation of the MML.
The results of the current study challenge existing sport leadership studies that claim member characteristics lead to varying leadership preferences (Beam, Serwatka, & Wilson, 2004; Chelladurai & Arnott, 1985; Fry et al., 2006; Lam, et al., 2007; Martin et al., 2001; Riemer & Toon, 2001; Turman, 2003). The present study contends that member characteristics do not influence the preferred behaviors of student-athletes because the authors could not classify the participants based on their responses. In this regard, the current study is more consistent with other research (Martin et al., 1999; Sherman, Fuller, & Speed, 2000; Terry & Howe, 1984).

While the results suggest that only member characteristics do not indicate the preferred coaching behaviors of student-athletes, the authors make this conclusion with a degree of hesitation. One limitation to this project was the number of subjects. The sample size was relatively small (n=140) and non-randomly selected, and therefore the results may not be generalized to all collegiate student-athletes. The conflicting results among all of the studies examining the member characteristics of athletes and their effects on preferred coaching behaviors might suggest that the Revised Leadership Scale for Sport is sample specific and thus, generalized based on the gender, race, or amount of playing time of the student-athlete.

Therefore, coaches may need to simply understand what behaviors will increase the satisfaction and performance of their specific team rather than adjust solely based on the demographic characteristics of their athletes. Therefore, it seems that sport leaders cannot use a cookie-cutter approach. Coaches, it may seem, should adapt to what their teams, both as individual athletes and the team as a whole, prefer rather than using one approach based on the demographic characteristics of the individual players.

Revised Leadership Scale for Sport

The results of the current study and the impact for the MML are made with a degree of skepticism. The model can only be thoroughly tested if the instrument designed specifically for the MML is viable. The current data does not support the complete
legitimacy of the RLSS. In particular, two subscales, Autocratic Behavior and Situational Consideration, have low reliability estimates in the present study.

Although some prior investigations report acceptable levels of internal consistency for all subscales in the RLSS (Andrew, 2004; Jambor & Zhang, 1997), the results for the subscales in this study are consistent with research that report low levels of Cronbach’s alpha for the Autocratic Behavior subscale (Beam et al., 2004; Zhang & Jensen, 1997). Autocratic Behavior ($\alpha = .52$) showed the worst level of consistency in the present study. One explanation for the lack of consistency is the questions themselves. For example, three questions seem to ask for behaviors that may not measure Autocratic Behavior:

1) I prefer my coach to disregard athletes’ fears and dissatisfactions
2) I prefer my coach to fail to explain his/her actions
3) I prefer my coach to keep aloof from the athletes.

All three of the above questions, which are listed in the Autocratic Behavior subscale, seem to measure behaviors that are not consistent with autocratic behavior, which is considered a decision-making behavior in the RLSS. For example, “I prefer my coach to disregard athletes’ fears and dissatisfactions,” and “I prefer my coach to keep aloof from the athletes” seem to measure behaviors that are opposite of Social Support rather than Autocratic decision-making. Therefore, this subscale appears to have content validity issues.

The results for the subscale of Situational Consideration in the present study indicate an alpha level of .69. This contradicts the results reported by Zhang and Jensen (1997) and Andrew (2004). Zhang and Jensen (1997) reported an internal consistency of .84 on the Situational Consideration subscale. Andrew (2004) reported an alpha level of .91. Although the internal consistency for Situational Consideration is not as low as Autocratic Behavior, the conflicting results between previous research and the present study suggest that more research should be conducted to substantiate the internal reliability of the Situational Consideration subscale.

Finally, there is anecdotal evidence that suggests the language in the RLSS may be confusing. Twice during the in-person administration of the instrument, participants asked for the definition of words in a particular question. When this occurred, the primary researcher gave brief descriptions for the specific words within the instrument. Although the same opportunity to ask questions was not afforded to the respondents that completed the survey online, the infrequent times this occurred during the in-person administration should be paralleled within the web-based methodology. It does raise the question of how many other participants in the current sample, as well as ones in other studies, were confused by questions and would have answered them differently if understood more thoroughly. The revision of the RLSS may increase the psychometric properties of the Autocratic Behavior and Situational Consideration subscales, as well as clear up any
confusing language in the instrument. The RLSS was designed to specifically test the MML. If the instrument is flawed, the ability to measure the MML also becomes flawed. Therefore, these revisions may allow for more complete and convincing investigations of the MML.

**Implications**

Assuming the RLSS tests the MML adequately, there are implications for coaching behaviors and leadership. The National Standard for Sport Coaches provides guidelines to coaching educators as well as practicing coaches. The range of domains and standards indirectly examined in this study are considerable given the results’ importance in sport leadership. The MML contends that student-athlete demographics will give coaches an indication of the leadership behavior that the student-athlete prefers (Chelladurai, 1980). The results of the present study contradict that model. The current research, along with recent investigations (Andrew, 2004; Sherman et al., 2000), suggests that there are no differences regarding preferred leadership between different demographic groups. The data indicates that males and females generally prefer similar coaching behaviors and that different racial and ethnic groups generally prefer similar coaching behaviors. It also seems that from the current data, players with varying levels of playing time prefer comparable coaching behaviors. The current results, combined with previous investigations, some with parallel and others with conflicting outcomes, indicate that coaches must be able to exhibit different behaviors for specific teams. The key then, is for coaches to understand the coaching behaviors that lead to higher satisfaction and performance in his or her specific team rather than implementing a cookie-cutter approach based solely on demographic variables.

**Recommendations**

There are several avenues for future research to advance coaching and leadership knowledge. All of the research found to date regarding preferred leadership and member characteristics deal with demographic information, gender, race, skill level, etc. However, no research was found that examined personality characteristics and preferred leadership. One future project may examine if student-athletes with different personality types prefer different coaching behaviors.

Another avenue that may contribute to coaching science literature is a correlation study between head coaches and student-athletes on specific teams. Future research should correlate head coaches with their student-athletes. If this is done, the results could be applied to specific teams. This would allow the MML to be more thoroughly investigated, specifically the congruency and its effect on the MML outcomes of team satisfaction and performance.

There is limited research regarding leader characteristics and their influence on preferred leadership. Another aspect that would allow further examination of the
The legitimacy of the MML is to examine how the coaches’ characteristics influence the preferred leadership of student-athletes.

The subscales for Autocratic Behavior and Situational Consideration may need to be revised to increase the psychometric properties to acceptable levels. This would allow more thorough testing of the leadership models that were developed generations ago.
References


Volume 5, Issue 1, May 2012


